

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Currently amended) The method of claim ~~[[1]]~~ 26 including operating the actuator to store a document in ~~[[a]]~~ the cassette.
3. (Currently amended) The method of claim ~~[[1]]~~ 26 including operating the actuator to cause movement of a piston to store a document in ~~[[a]]~~ the cassette.
4. (Currently amended) The method of claim 26 ~~1 wherein sensing electric signals includes sensing values indicative of actuator load and~~ wherein determining whether an ~~abnormal~~ expected or unexpected event has occurred includes comparing an amount of time that has elapsed between specified ~~sensed~~ measured values of actuator load to a predetermined amount of time.
5. (Currently amended) The method of claim ~~[[1]]~~ 26 including identifying an amount of time that has elapsed from a specified point in the stacking operation to a peak value of actuator load, wherein determining whether an ~~abnormal~~ expected or unexpected event has occurred is based on the identified amount of time.
6. (Currently amended) The method of claim ~~[[1]]~~ 26 including identifying an amount of time that has elapsed from a specified point in the stacking operation to a

predetermined threshold value of actuator load, wherein determining whether an ~~abnormal~~ expected or unexpected event has occurred is based on the identified amount of time.

7. (Canceled)

8. (Currently amended) The method of claim 26 ~~1~~ ~~wherein sensing electric signals includes sensing signals indicative of actuator load, wherein the method includes~~ including integrating the measured values of actuator load for a specified period of time during [[a]] the document stacking operation to obtain an integrated value, wherein determining whether an ~~abnormal~~ expected or unexpected event has occurred is based on the integrated value.

9. (Currently amended) The method of claim 26 [[1]] wherein determining whether an ~~abnormal~~ expected or unexpected event has occurred includes comparing at least one value derived from the measured ~~sensed~~ values to at least one reference value.

10. (Canceled)

11. (Original) The method of claim 9 including adjusting the at least one reference value based on previously sensed values of actuator load.

12. (Currently amended) The method of claim 26 [[1]] including using the measured ~~sensed~~ signals to distinguish between ~~determine~~ whether [[a]] the document cassette is full or whether the stacker is jammed.

13. (Withdrawn) The method of claim 1 including:
receiving a document in a document acceptor;
determining whether the document is considered to be valid;
transporting the document from the acceptor to the stacker; and

storing the document in a cassette.

14. (Canceled)

15. (Currently amended) The apparatus of claim 33 ~~13 wherein the first circuitry is adapted to sense signals indicative of actuator load, and~~ wherein the second circuitry is operable adapted to compare an amount of time that elapses between specified values of the measured sensed signals to a predetermined amount of time and to determine whether an ~~abnormal~~ expected or unexpected event has occurred based on the comparison.

16. (Currently amended) The apparatus of claim 33 ~~13 wherein the first circuitry is adapted to sense signals indicative of actuator load, and~~ wherein the second circuitry is operable adapted to identify an amount of time that elapses from a specified point in the stacking operation to a peak value of actuator load and to determine whether an ~~abnormal~~ expected or unexpected event has occurred is based on the identified amount of time.

17. (Currently amended) The apparatus of claim 33 ~~13 wherein the first circuitry is adapted to sense signals indicative of actuator load, and~~ wherein the second circuitry is operable adapted to identify an amount of time that elapses from a specified point in the stacking operation to a predetermined threshold value of actuator load, and to determine whether an ~~abnormal~~ expected or unexpected event has occurred is based on the identified amount of time.

18. (Currently amended) The apparatus of claim 33 ~~13 wherein the first circuitry is adapted to sense signals indicative of actuator load, and~~ wherein the second circuitry is operable adapted to compare an actual profile of the actuator load with an expected profile and to determine whether an ~~abnormal~~ expected or unexpected event has occurred based on the comparison.

19. (Currently amended) The apparatus of claim 33 ~~13 wherein the first circuitry is adapted to sense signals indicative of actuator load, and~~ wherein the second circuitry is operable adapted to integrate the measured values of the signals corresponding to actuator load for a specified period of time during [[a]] the document stacking operation to obtain an integrated value and to determine whether an abnormal expected or unexpected event has occurred based on the integrated value.

20-21. (Canceled)

22. (Currently amended) The apparatus of claim ~~[[20]]~~ 33 wherein the measured signals are indicative of actuator load, and wherein the second circuitry is ~~adapted~~ operable to adjust the ~~at least one reference signal profile value~~ based on previously measured sensed values of actuator load.

23. (Currently amended) The apparatus of claim 33 ~~[[13]] wherein the second circuitry is adapted operable to use the measured signals indicative of how the actuator is functioning to determine whether the cassette is full or the stacker is jammed.~~

24. (Currently amended) The apparatus of claim ~~[[13]]~~ 33 wherein the actuator includes a direct current motor.

25. (Withdrawn) The apparatus of claim 13 including:
a document acceptor to receive a document and determine its validity; and
a transport mechanism to transport the document from the acceptor to the stacker if the document is determined to be valid,
wherein the stacker is configured to store the transported document in the cassette.

26. (New) A machine-implemented method for use in connection with a document storage cassette comprising a document stacker that includes an actuator, the method comprising:

- measuring values of signals each of which is indicative of a respective load on the actuator during a document stacking operation;
- comparing information about the measured values to a reference signal profile;

and

- determining whether an expected event has occurred or whether an unexpected event has occurred based on the comparison.

27. (New) The method of claim 26 wherein the reference signal profile is a curve that represents values of actuator current during different phases of stacker operation.

28. (New) The method of claim 26 wherein comparing information includes comparing an actual profile of actuator current to an expected profile of actuator current.

29. (New) The method of claim 26 wherein comparing information includes comparing an actual curve of actuator current to an expected curve of actuator current.

30. (New) The method of claim 26 wherein measuring values of signals indicative of a load on the actuator includes sampling values of current corresponding to the actuator load at different times.

31. (New) The method of claim 26 wherein the reference signal profile represents values of current indicative of the expected load on the actuator during different phases of stacker operation.

32. (New) The method of claim 26 including obtaining information from the measured values about a transition from one state of the stacker operation to another state of the stacker operation and comparing the obtained information to an expected signal profile.

33. (New) An apparatus comprising:
a document stacker including:
a cassette to store documents;
a piston operable to push a document into the cassette;
an actuator operable to control movement of the piston; and
first circuitry operable to measure values of signals indicative of a load on the actuator during a document stacking operation; and
second circuitry coupled to the actuator to control operation of the actuator and coupled to the first circuitry, wherein the second circuitry is operable to compare information about the measured values to a reference signal profile and to determine whether an expected event has occurred or whether an unexpected event has occurred based on the comparison.

34 (New) The apparatus of claim 33 wherein the reference signal profile is a curve that represents values of actuator current during different phases of stacker operation.

35. (New) The apparatus of claim 33 wherein the second circuitry is operable to compare an actual profile of actuator current to an expected profile of actuator current.

36. (New) The apparatus of claim 33 wherein the second circuitry is operable to compare an actual curve of actuator current to an expected curve of actuator current.

37. (New) The apparatus of claim 33 wherein the first circuitry is operable to measure values of signals indicative of a load on the actuator by sampling values of current corresponding to the actuator load at different times.

38. (New) The apparatus of claim 33 wherein the reference signal profile represents current values indicative of the expected load on the actuator during different phases of stacker operation.

39. (New) The apparatus of claim 33 wherein the second circuitry is operable to obtain information from the measured values about a transition from one state of the stacker operation to another state of the stacker operation and to compare the obtained information to an expected signal profile.